

**APPLICATION FOR UNITED STATES PLANT PATENT**

**for**

**CHRYSANTHEMUM PLANT NAMED 'NIGHTHAWK YELLOW'**

**by**

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This application claims the benefit of U.S. Provisional Application No. 60/421,384, filed October 25, 2002.

#### LATIN NAME OF THE GENUS AND SPECIES

Botanical classification: *Chrysanthemum morifolium*.

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#### VARIETY DENOMINATION

The new *Chrysanthemum* variety denomination is 'Nighthawk Yellow.'

#### BACKGROUND OF THE INVENTION

The present invention comprises a new and distinct cultivar of *Chrysanthemum* botanically known as *Chrysanthemum morifolium*, and referred to by the cultivar name  
10 'Nighthawk Yellow.'

'Nighthawk Yellow,' identified as 30219-1, originated from a whole plant mutation grown in a controlled planting of the unpatented variety 'Nighthawk' in Chichester, West Sussex, United Kingdom. The new variety 'Nighthawk Yellow' has been asexually reproduced by vegetative cuttings in Chichester, West Sussex, United  
15 Kingdom and the distinguishing characteristics are retained through successive generations of asexual reproduction.

#### BRIEF SUMMARY OF THE INVENTION

'Nighthawk Yellow' is a garden type of *Chrysanthemum* plant variety having a domed, round habit and yellow decorative flowers.

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#### Comparison with Parent

Plants of the new *Chrysanthemum* variety 'Nighthawk Yellow' are similar to the parent variety 'Nighthawk' in plant habit and growth rate. In side-by-side comparisons in Chichester, West Sussex, United Kingdom, under commercial practice, plants of the new *Chrysanthemum* variety 'Nighthawk Yellow' differ from plants of the parent  
25 'Nighthawk' in the following characteristic.

1. The new variety 'Nighthawk Yellow' produces yellow flowers whereas the parent 'Nighthawk' produces pink flowers.

#### Comparison with Other Varieties

Plants of the new Chrysanthemum variety 'Nighthawk Yellow' are similar to the patented variety 'Gold Crest' (U.S. Plant Patent No. 11,606) in plant habit and growth rate. However, in side-by-side comparisons in Chichester, West Sussex, United Kingdom, under commercial practice, plants of the new Chrysanthemum variety

5 'Nighthawk Yellow' differed from plants of 'Gold Crest' in the following characteristics.

1. The new variety 'Nighthawk Yellow' produces clear yellow decorative flowers whereas 'Gold Crest' produces yellow/bronze flowers.
2. The new variety 'Nighthawk Yellow' produces smaller flowers than 'Gold Crest.'

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#### BRIEF DESCRIPTION OF ILLUSTRATION

Typical specimens of the plant and flowers for the new Chrysanthemum variety 'Nighthawk Yellow' are shown in the accompanying digital photograph. The colors shown are as true as possible within the usual limits of this kind of illustration. Figure 1 is a whole plant view of the new variety 'Nighthawk Yellow' grown in a pot. The plant

15 shown in the illustration is 70 days from commencement of planting outdoors in mid-June.

#### DETAILED BOTANICAL DESCRIPTION

The following description of the new Chrysanthemum variety 'Nighthawk Yellow' is of plants grown outside, natural season, in Chichester, West Sussex, United Kingdom in the month of June. The cultivar has not been observed under all possible environmental conditions. The phenotype may vary significantly with variations in the environment such as temperature, length of day and light intensity, without any variance in genotype. The commercial classification of the new variety is a garden

20 Chrysanthemum.

Plants of the new variety have been grown successfully under temperature conditions averaging about 50°F at night and about 65°F to 75°F during the day under natural light conditions. The plants were grown outdoors in mid-June in 4 liter pots using loamless compost. No growth retardants were used. To produce a commercial product the plants may be pinched once with the center bud removed. The typical container size

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30 for commercial growth is 4 liter (8"). It has been observed that the shelf life of the new

variety is about 26 days with a response time of about 10 weeks natural season. The new variety is suitable for growth in a temperature range of 50°F to 75°F.

The new variety may be produced as a pot plant. The following description is with respect to a plant produced as a garden pot plant. In the description of this new

- 5 Chrysanthemum variety, color values have been taken from the Royal Horticultural Society Colour Chart (R.H.S.C.C.).

#### Plant

Plant type: Pot

Habit: Domed, Round, Spreading

- 10 Height: 48-53 cm

Width: 45-48 cm

Branching characteristics: Free Branching, Spreading

Length of Lateral Branches: 11-15 cm

Number of Breaks from Pinch: 7-9

- 15 Stem Color: near 137A

Response Time: 70 days

Vigor: Medium/Tall

Shelf Life: 26 days

Disease (Susceptibility/Resistance observed): None observed to date

- 20 Pest (Susceptibility/Resistance observed): None observed to date

Growth retardant type and treatment: No treatment necessary

The plants were grown for 10 weeks in natural season conditions

Propagation:

*Type:* Vegetative Propagation via Stem Cuttings

- 25 *Time to rooting:* 12 days with soil temperatures of 70°F

*Rooting habit:* Fine and Fibrous

## Foliage

Number of Leaves Per Lateral Branch: 7-11

Compound or single: Single

Arrangement of Leaves: Alternate

5            Shape of Leaf: Typically 5 lobed ovate

Size of Leaf:            *Width (cm): 1.5-3.5   Length (cm): 3-5*

Leaf Apex: Acute

Base: Truncate

Attachment: Petioled

10           Aspect: Slightly Undulating

Margin: Palmately Lobed

Surface characteristics:    *Top: Slightly Pubescent*

*Bottom: Slightly Pubescent*

Petiole:            *Color: 138B*

15                    *Length: 0.7-1 cm*

Venation: Net prominent mid vein at underside.

*Color: upper side: near 138B*

*under side: near 138C*

Color:            Mature Leaf, *upper side: near 137A; under side: near 137B*

20                    Young Leaf, *upper side: near 137B; under side: near 137B*

## Flower

Flower appearance: Matte

Flower type: Decorative

Flower form: Domed

25    Flower shape: Round

Flowering habit: Cyme

Number of blossoms per branch: 7-11

Inflorescence form: Corymibiform

Depth of fully expanded blossoms: 2-3.5 cm

Diameter of fully expanded blossoms: 2.5-4.5 cm

- Phyllaries:    *Number:* 28-30  
                   *Color:* near 136C  
5                *Length:* 6–8 mm  
                   *Width:* 1–2 mm  
                   *Texture/Appearance:* Pubescent
- Pedicel:        *Length:* terminal: 8 cm; lateral: 11 cm  
                   *Color:* near 136B  
10               *Surface:* Pubescent  
                   *Habit:* Straight  
                   *Strength:* Medium
- Ray florets:    *Form/Shape:* Straight  
                   *Texture/Appearance :* Matte  
15                *Number per flower:* 190-220  
                   *Length:* 1.5-2.5 cm; *Width:* 3-6 mm  
                   *Apex:* Rounded, Slightly Dentate  
                   *Base:* Tubular  
                   *Margin:* Entire
- 20    Disc florets: *Form/Shape:* Cylindrical  
                   *Texture/Appearance:* Shiny  
                   *Number per flower:* 2-3  
                   *Length:* 5-6 mm; *Width:* 1 mm  
                   *Diameter of disc:* 1-2 mm
- 25    Fragrance: None
- Flower Bud (at onset of color):  
                   *Length:* 5-7 mm  
                   *Diameter:* 6-8 mm  
                   *Form/Shape:* Globular

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## General flower color:

1. Ray florets, *upper side*:  
*Immature*: near 9A  
*Mature*: near 10A  
5 *Older/Fading*: near 10C
2. Ray florets, *under side*:  
*Immature*: near 9A  
*Mature*: near 10A  
*Older/Fading*: near 10C
- 10 3. Disc florets:  
*Immature*: near 15A  
*Mature*: near 15B  
*Older/Fading*: near 15D
4. Bud: near 145B
- 15 Flower progression with age: Flowers fade uniformly with age and some florets become reflexing.

## Reproductive Organs

Gynoecium present on Ray and Disc florets.

Ray florets per individual flower:

- 20 *Pistil number*: 60-80 observed  
*Stigma color*: near 144D  
*Stigma shape*: Forked  
*Style Color*: near 144D  
*Style Length*: 3 mm

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Disc florets per individual flower:

- Pistil number*: 2-3  
*Stigma color*: 144C  
*Stigma shape*: Forked

*Style color:* near 144D

*Style length:* 3 mm

Androeccium: Not observed

Fruit and Seeds: None observed

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